Measurements Recorded on Dated.

Name of Work:	Improvements to roads drains and other Development Works in Bagalagunte Ward No.14
Estimated Cost	50.00 Lakhs
Head of Account	P 3296
Job Code No	014-19-000007
A.S No. & Date	EE/DD/AS/85/18-19 Dated.18/12/2018
T.S No. & Date	CE/DZ/TS/81/18-19 Dated.18/12/2018
W.O No. & Date	EE/DD/WO/360/19-20 Dated 10/07/2019
Name of Agency	Sri. Raghunandan L

1st and Final Bill

Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications including Conveying the Excavated Silt, debris and over burden earth, etc., to lead of 0 to 5 Kms distance by using private vehicle this includes the cost of loading and unloading charges etc., complete.								
	E.W.E for CC Drain								
	16th A Cross	1	1	30.00	-	-	1.00	0.90	27.00
		1	1	30.00	-	-	1.00	0.90	27.00
		1	1	30.00	-	-	1.00	0.90	27.00
		1	1	30.00	-	-	1.00	0.90	27.00
		1	1	30.00	-	-	1.00	0.90	27.00
		1	1	22.00	-	-	1.00	0.90	19.80
		Total Qty						**154.80**	**Cum**

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Measurement Continued.

2	*Providing and Laying Plain cement concrete M10 with OPC cement @ 220kgs, with crushed 40mm and down size graded granite metal coarse aggregates @0.84cum and fine aggregates @ 0.56cum, in foundation mechanically mixed, placed in foundation and compacted by vibration including curing for 14 days complete as per specifications*									
	Bed Concrete for CC Drain									
	16th A Cross	1	1	30.00	-	-	1.00	0.15	4.50	
		1	1	30.00	-	-	1.00	0.15	4.50	
		1	1	30.00	-	-	1.00	0.15	4.50	
		1	1	30.00	-	-	1.00	0.15	4.50	
		1	1	30.00	-	-	1.00	0.15	4.50	
		1	1	22.00	-	-	1.00	0.15	3.30	
		Total Qty							**25.80**	**Cum**
		Qty Ltd to/ Payable Qty							**16.50**	**Cum**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
	Measurement Continued.								
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs.with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates at0.43 cum machine mixed, well compacted for walls and bottom including centering, shuttering, cost of materials, HOM of machinery, curing etc., complete excluding cost of steel as per specification including cost of materials,labour,HOM complete as per specifications Wall & bottom Thickness 15cm & Complete as per the direction of Engineer-in-charge of the Work.								
	Raft Concrete for CC Drains								
	16th A Cross	1	1	30.00	-	-	0.75	0.15	3.37
		1	1	30.00	-	-	0.75	0.15	3.37
		1	1	30.00	-	-	0.75	0.15	3.37
		1	1	30.00	-	-	0.75	0.15	3.37
		1	1	30.00	-	-	0.75	0.15	3.37
		1	1	22.00	-	-	0.75	0.15	2.47
				Total Qty/ Payable Qty					**19.32** **Cum**

	Measurement Continued.									
3	Providing and laying plain/reinforced cement concrete for side drains using M20 nominal mix concrete with OPC at 300 kgs.with 20mm and down size granite metal coarse aggregates at 0.69 cum and fine aggregates									
	Sidewall Concrete for CC Drains									
	16th A Cross	1	2	30.00	-	-	0.15	0.60	5.40	
		1	2	30.00	-	-	0.15	0.60	5.40	
		1	2	30.00	-	-	0.15	0.60	5.40	
		1	2	30.00	-	-	0.15	0.60	5.40	
		1	2	30.00	-	-	0.15	0.60	5.40	
		1	2	22.00	-	-	0.15	0.60	3.96	
	Add Raft Concrete Qty Vide Item No.3								19.32	
				Total Qty					**50.28**	**Cum**

	Qty Ltd to/ Payable Qty	**39.60**	**Cum**

38.70

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
	Measurement Continued.								
4	Providing T.M.T steel reinforcement for R.C.C work including straightening, cutting, bending, hooking, placing in position, lapping and / or welding wherever required, tying with binding wire and anchoring to the adjoining members wherever necessary complete as per design (laps, hooks and wastage shall not be measured and paid) cost of materials, labour, HOM of machinery complete as per specifications. Fe500								
	10mm dia U Shpae bars								
	Drain Length=172 Mtrs	1147	1.75			@	0.62	1244.49	
	10mm dia Distribution bars								
	4th Cross From 6th Main to 10th Main Road-W/s	12	172.00			@	0.62	1279.68	
					Total			2524.17	Kgs
					Total Qty			**2.52**	**Tonnes**
					Qty Ltd to/ Payable Qty			**2.57**	**Tonnes**

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5	Providing and fixing RCC Precast cover slab of 100mm thick for drain in cement concrete M20 using graded granite jelly 20mm and down size with steel reinforcement, including form work, lift charges, curing and concrete finished surfaces on both sides etc, complete and as per drawing and the directions of Engineer in-charge of the Work									
	RCC Precast cover slab of 100mm thick									
	16th A Cross	1	1	30.00	-	-	0.75		22.50	
		1	1	30.00	-	-	0.75		22.50	
		1	1	30.00	-	-	0.75		22.50	
		1	1	30.00	-	-	0.75		22.50	
		1	1	30.00	-	-	0.75		22.50	
		1	1	22.00	-	-	0.75		16.50	
					-	-				
	Deduction for BS Slab	1	50	0.75	-	-	0.60		-22.50	
						Total Qty			**106.50**	**Sqm**
						Qty Ltd to/ Payable Qty			**99.00**	**Sqm**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
	Measurement Continued.								
1	Earthwork excavation by manual means in ordinary soil involving an average horizontal throw upto 2 meters and an average lift upto 0.5 m, excavated surface leveled and sides neatly dressed, the disposed earth to be leveled neatly after breaking of clods complete as per specifications including Conveying the Excavated Silt, debris and over burden earth, etc., to lead of 0 to 5 Kms distance by using private vehicle this includes the cost of loading and unloading charges etc., complete.								
	16th A Cross								
	From Jagadeesh House	1	1	4.50	7.00	-	7.00	0.25	7.87
		1	1	24.50	5.40	4.90	5.15	0.25	31.54
	From Padamavathi Nilaya	1	1	9.80	2.80	2.50	2.65	0.25	6.49
		1	1	30.00	3.70	3.40	3.55	0.25	26.62
		1	1	30.00	3.70	3.50	3.60	0.25	27.00
	From Padamavathi House	1	1	27.00	3.70	3.40	3.55	0.25	23.96
		1	1	30.00	5.40	6.00	5.70	0.25	42.75
	16th A Cross-MEI Layout park	1	1	22.00	6.00	7.50	6.75	0.25	37.12
		1	1	3.00	4.00	3.40	3.70	0.25	2.77
		1	1	30.00	3.00	3.60	3.30	0.25	24.75
		1	1	30.00	3.60	4.50	4.05	0.25	30.37
		1	1	30.00	4.50	3.40	3.95	0.25	29.62
	Blossom School Road	1	1	21.00	3.40	4.00	3.70	0.25	19.42
	From Annapoorneshwari Tenthouse to Meghana Nilaya- 5th Main MEI Layout	1	1	21.00	6.75	6.00	6.38	0.25	33.46
		1	1	8.50	4.10	3.70	3.90	0.25	8.28
		1	1	30.00	5.00	5.50	5.25	0.25	39.37
		1	1	30.00	5.50	5.00	5.25	0.25	39.37
		1	1	30.00	5.50	4.00	4.75	0.25	35.62
		1	1	20.00	5.00	4.50	4.75	0.25	23.75
				Total Qty-2				**490.13**	**Cum**
	Total Qty Vide Item No.1= E.W.E for Drain+E.W.E for CC Road			**154.80**	+	**490.13**		**644.93**	**Cum**
				Qty Ltd to/ Payable Qty				**547.50**	**Cum**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
	Measurement Continued.								
6	Construction of Granular sub-base Grading V as sub base and drainage layer by providing coarse graded crushed stone aggregates of Granite/ trap/basalt material spreading in uniform layers with motir grader on prepared surface mixing in mechanical mix Plant at OMC, Carriage of mixed material to work site, spreading in Uniform Layers with Motor grader on Preapared Surface and Compacting with vibratory roller to achieve the 98% Proctor density, complete as per specifications.								
	16th A Cross								
	From Jagadeesh House	1	1	4.50	7.00	-	7.00	0.15	4.72
		1	1	24.50	5.40	4.90	5.15	0.15	18.92
	From Padamavathi Nilaya	1	1	9.80	2.80	2.50	2.65	0.15	3.89
		1	1	30.00	3.70	3.40	3.55	0.15	15.97
		1	1	30.00	3.70	3.50	3.60	0.15	16.20
	From Padamavathi House	1	1	27.00	3.70	3.40	3.55	0.15	14.37
		1	1	30.00	5.40	6.00	5.70	0.15	25.65
	16th A Cross-MEI Layout park	1	1	22.00	6.00	7.50	6.75	0.15	22.27
		1	1	3.00	4.00	3.40	3.70	0.15	1.66
		1	1	30.00	3.00	3.60	3.30	0.15	14.85
		1	1	30.00	3.60	4.50	4.05	0.15	18.22
		1	1	30.00	4.50	3.40	3.95	0.15	17.77
	Blossom School Road	1	1	21.00	3.40	4.00	3.70	0.15	11.65
	From Annapoorneshwari Tenthouse to Meghana Nilaya- 5th Main MEI Layout	1	1	21.00	6.75	6.00	6.38	0.15	20.08
		1	1	8.50	4.10	3.70	3.90	0.15	4.97
		1	1	30.00	5.00	5.50	5.25	0.15	23.62
		1	1	30.00	5.50	5.00	5.25	0.15	23.62
		1	1	30.00	5.50	4.00	4.75	0.15	21.37
		1	1	20.00	5.00	4.50	4.75	0.15	14.25
	Total Qty							**294.05**	**Cum**
	Qty Ltd to/ Payable Qty							**281.25**	**Cum**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
	Measurement Continued.								
7	Providing, laying, spreading and compacting stone aggregate to wet mix macadam specification including premixing the Material with water at OMC in mechanical mix plant carriage of mixed Material by tipper to site, laying in uniform layers with paver in sub-base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density. Complete as per specifications.								
	16th A Cross								
	From Jagadeesh House	1	1	4.50	7.00	-	7.00	0.20	6.30
		1	1	24.50	5.40	4.90	5.15	0.20	25.23
	From Padamavathi Nilaya	1	1	9.80	2.80	2.50	2.65	0.15	3.89
		1	1	30.00	3.70	3.40	3.55	0.15	15.97
		1	1	30.00	3.70	3.50	3.60	0.15	16.20
	From Padamavathi House	1	1	27.00	3.70	3.40	3.55	0.15	14.37
		1	1	30.00	5.40	6.00	5.70	0.20	34.20
	16th A Cross-MEI Layout park	1	1	22.00	6.00	7.50	6.75	0.20	29.70
		1	1	3.00	4.00	3.40	3.70	0.15	1.66
		1	1	30.00	3.00	3.60	3.30	0.15	14.85
		1	1	30.00	3.60	4.50	4.05	0.15	18.22
		1	1	30.00	4.50	3.40	3.95	0.15	17.77
	Blossom School Road	1	1	21.00	3.40	4.00	3.70	0.15	11.65
	From Annapoorneshwari Tenthouse to Meghana Nilaya- 5th Main MEI Layout	1	1	21.00	6.75	6.00	6.38	0.20	26.77
		1	1	8.50	4.10	3.70	3.90	0.20	6.63
		1	1	30.00	5.00	5.50	5.25	0.20	31.50
		1	1	30.00	5.50	5.00	5.25	0.20	31.50
		1	1	30.00	5.50	4.00	4.75	0.20	28.50
		1	1	20.00	5.00	4.50	4.75	0.20	19.00
		Total Qty						**353.91**	**Cum**
		Qty Ltd to/ Payable Qty						**350.00**	**Cum**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
28	Cement concrete pavement.Construction of un-reinforced plain cement concrete pavement, thickness as per design, over a prepared sub base with OPC cement or any other type as per clause 1051.2.2 with 25mm and down size graded granite metal coarse aggregates and fine aggregtes , with superplastisiser @3lts confirming to IS 9103-1999 ReaffirmecF2008 , mixed in a concrete mixer of not less than 0.6 cum capacity and appropriate weigh batcher as per approved mix design, laid in approved fixed side form work (steel channel, laying and fixing of 125 micron thick polythene film, wedges, steel plates including levelling the form work as per drawing). Spreading the concrete with shovels, rackers compacted using needle, screed and plate vibrator and finished in a continuous operation including provision of contraction, expansion, construction and longitudinal joints, joint filler, separation membrane, selant primer, joint sealant, admixtures as approved, curing compound, finishing to lines and grades as per drawing complete as per specifications. M30 (at 360Kg per cum coarse aggregate @ 0.69cum and fine aggregate @ 0.43cum)								
	16th A Cross								
	From Jagadeesh House	1	1	4.50	7.00	-	7.00	0.15	4.72
		1	1	24.50	5.40	4.90	5.15	0.15	18.92
	From Padamavathi Nilaya	1	1	9.80	2.80	2.50	2.65	0.15	3.89
		1	1	30.00	3.70	3.40	3.55	0.15	15.97
		1	1	30.00	3.70	3.50	3.60	0.15	16.20
	From Padamavathi House	1	1	27.00	3.70	3.40	3.55	0.15	14.37
		1	1	30.00	5.40	6.00	5.70	0.15	25.65
	16th A Cross-MEI Layout park	1	1	22.00	6.00	7.50	6.75	0.15	22.27
		1	1	3.00	4.00	3.40	3.70	0.15	1.66
		1	1	30.00	3.00	3.60	3.30	0.15	14.85
		1	1	30.00	3.60	4.50	4.05	0.15	18.22
		1	1	30.00	4.50	3.40	3.95	0.15	17.77
	Blossom School Road	1	1	21.00	3.40	4.00	3.70	0.15	11.65
	From Annapoorneshwari Tenthouse to Meghana Nilaya- 5th Main MEI Layout	1	1	21.00	6.75	6.00	6.38	0.15	20.08
		1	1	8.50	4.10	3.70	3.90	0.15	4.97
		1	1	30.00	5.00	5.50	5.25	0.15	23.62
		1	1	30.00	5.50	5.00	5.25	0.15	23.62
		1	1	30.00	5.50	4.00	4.75	0.15	21.37
		1	1	20.00	5.00	4.50	4.75	0.15	14.25
							Total Qty		**294.05** **Cum**
							Qty Ltd to/ Payable Qty		**281.25** **Cum**

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Sl. No.	Description of work	Measurements						Qty	Unit
		No.s	Length			Breadth	Depth		
9	Vaccum de-watering with vaccum pump and suction mat and compaction with skin floater clubbed with floating disc including cost of generator, HOM of machinery,screed vibratory,power Floater,blade and disc etc., with all lead and lift								
	16th A Cross								
	From Jagadeesh House								
		1	1	4.50	7.00	-	7.00	31.50	
	From Padamavathi Nilaya	1	1	24.50	5.40	4.90	5.15	126.17	
		1	1	9.80	2.80	2.50	2.65	25.97	
		1	1	30.00	3.70	3.40	3.55	106.50	
	From Padamavathi House	1	1	30.00	3.70	3.50	3.60	108.00	
		1	1	27.00	3.70	3.40	3.55	95.85	
	16th A Cross-MEI Layout park	1	1	30.00	5.40	6.00	5.70	171.00	
		1	1	22.00	6.00	7.50	6.75	148.50	
		1	1	3.00	4.00	3.40	3.70	11.10	
		1	1	30.00	3.00	3.60	3.30	99.00	
		1	1	30.00	3.60	4.50	4.05	121.50	
		1	1	30.00	4.50	3.40	3.95	118.50	
	Blossom School Road	1	1	21.00	3.40	4.00	3.70	77.70	
	From Annapoorneshwari Tenthouse to Meghana Nilaya- 5th Main MEI Layout	1	1	21.00	6.75	6.00	6.38	133.87	
		1	1	8.50	4.10	3.70	3.90	33.15	
		1	1	30.00	5.00	5.50	5.25	157.50	
		1	1	30.00	5.50	5.00	5.25	157.50	
		1	1	30.00	5.50	4.00	4.75	142.50	
		1	1	20.00	5.00	4.50	4.75	95.00	
							Total Qty	**1960.81**	**Sqm**
							Qty Ltd to/ Payable Qty	**1750.00**	**Sqm**

Limited. 380.50

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